

# THE OCCURRENCE OF ANCYLOSTOMES RESEMBLING *NECATOR AMERI-* *CANUS* AMONGST DOMESTIC PIGS IN AMAZONAS

BY

R. M. GORDON

*From the Research Laboratory, Liverpool School of Tropical  
Medicine, Manáos, Brazil*

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O'Connor (1920) records that when examining domestic pigs from Funafuti (Ellice Islands), he found ancylostomes apparently identical with *A. duodenale* of man. 'The larger females were a little more than 0.8 cms. in length, being thus smaller than the human parasite.'

Maplestone (1921) examined one hundred and eighty-two pigs in the Townsville district, with negative results.

Dr. Maplestone has recently shown me four ancylostomes obtained from a pig at Townsville, some time after his paper of 1921 was published. Three of these appear to be *A. duodenale*, 2 ♂♂, 1 ♀. The other is a female ANCYLOSTOMINAE measuring 0.9 cm., and exactly resembling the species described below.

Legg and Rheuben (1921) found nematodes 'closely resembling *A. duodenale* (man)' in three of a small number of pigs autopsied at Cromarty, about twenty miles from Townsville.

With a view to establishing whether such parasites also occurred in Brazilian pigs, the author carried out a series of fifteen post-mortems on pigs from the town of Manáos in Amazonas.

All the animals were of the domestic variety, and had been kept in, or around, native dwelling-houses. Their ages varied from young 'sucking pigs' to full-grown adults.

The intestines were opened on large flat dishes; all nematodes obtained from the gut, or by subsequent washings of the gut contents, were cleaned by shaking in normal saline, killed with hot

75 per cent. alcohol, and stored in Lacto-phenol. The ancylostomes were then separated and a microscopical examination made of each.

No *A. duodenale* were found, but one hundred and seventy-five ANCYLOSTOMINAE (118 ♀♀, 57 ♂♂), corresponding with *Necator americanus* in all respects, except that of size, were collected from the small intestine of ten of the fifteen pigs examined. The largest number obtained from any one animal was seventy-five, the smallest, one.

*Shape and size.* All of the one hundred and seventy-five worms examined showed the S-shaped curve characteristic of *Necator americanus*. The length of twenty-eight males varied from 6.5 mm. to 4.5 mm., average 5.1 mm.; and that of sixty-four females from 8.2 mm. to 5.5 mm., average 6.5 mm. The greatest breadth in the males averaged 230 $\mu$ , and in the females 270 $\mu$ .

*Mouth.* The minute anatomy of the mouth was indistinguishable from that of *Necator americanus*, and the average dimensions of the anterior opening of the mouth capsule in fourteen males was 60 $\mu$  in the dorso-ventral diameter, by 50 $\mu$  in the lateral, and 68 $\mu$  by 57 $\mu$  in the case of thirty-one females.

*Bursa.* The bursal formula differed in no respect from that of *Necator americanus*. Length of spicules 0.48 mm. (average of 12).

*Vulva.* This was situated in the anterior half of the body. It is important to note that some of the females were gravid.

### SUMMARY

Of fifteen domestic pigs examined for ancylostomes in Amazonas, 75 per cent. showed an infection with what is in all probability *Necator americanus*. Such a high proportion of infection would suggest that the pig, in this locality at any rate, plays a part of some importance in the spread of ancylostomiasis.

### REFERENCES

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